

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1-7. (Canceled)
8. (Currently Amended) In a wireless communication system, a method comprising:
estimating a channel condition over a first time window;
comparing the estimated channel condition to a first threshold value;
determining a first transmission rate for transmission of quality messages and a second transmission rate for transmission of differential indicators based on the comparison;
transmitting quality messages at the first transmission rate; and
transmitting differential indicators independently of quality messages at the second transmission rate, wherein the second transmission rate is greater than the first transmission rate.
9. (Original) The method as in claim 8, wherein the first time window is dynamically adjusted based on operation of the system.
10. (Original) The method as in claim 8, further comprising:
calculating an average channel condition; and
calculating variance of the channel condition.
11. (Currently Amended) A wireless apparatus, comprising:
means for estimating a channel condition over a first time window;
means for comparing the estimated channel condition to a first threshold value;
means for determining a first transmission rate for transmission of quality messages and a second transmission rate for transmission of differential indicators based on the comparison;

means for transmitting quality messages at the first transmission rate; and
means for transmitting differential indicators independently of quality messages at the second transmission rate, wherein the second transmission rate is greater than the first transmission rate.

12. (Currently Amended) In a wireless communication system for processing voice communications and packet-switched communications, a base station comprising:

receive circuitry operative to receive signals on a reverse link, including ~~[[a]]~~ quality messages with ~~[[a]]~~ parity checks at a first rate, and differential indicators at a second rate, ~~[[the]]~~ each quality message periodically providing a quality metric of a forward link, wherein the differential indicators track the quality metric between successive quality messages;

a memory storage unit operative to store ~~[[a]]~~ each quality message received on the reverse link; and

a differential analyzer to update each of the received quality messages stored in the memory storage unit in response to the differential indicators and the parity check, wherein the second rate is greater than the first rate.

13. (Previously Presented) A wireless apparatus, comprising:

processing unit, operative for executing computer-readable instructions; and

a memory storage unit storing a plurality of computer-readable instructions for:

generating quality messages at a first frequency and differential indicators at a second frequency, the quality messages providing information on the quality of a communication link, wherein the differential indicators track a quality metric between successive quality messages and wherein the second frequency is greater than the first frequency;

generating a parity check for each of the quality messages; and

transmitting the quality messages at the first frequency and differential

indicators at the second frequency.

14. (Canceled)
15. (Currently Amended) A wireless apparatus, comprising:
processing unit, operative for executing computer-readable instructions; and
a memory storage unit adapted to store a plurality of computer-readable instructions for:
estimating a channel condition over a first time window;
comparing the estimated channel condition to a first threshold value;
determining a first transmission rate for transmission of quality messages and a
second transmission rate for transmission of differential indicators based on the
comparison;
transmitting quality messages at the first transmission rate; and
transmitting differential indicators at the second transmission rate independently
of quality messages, wherein the second transmission rate is greater than the first
transmission rate.
16. (Currently Amended) In a wireless communication system, the wireless communication
system supporting a plurality of carriers, a method comprising:
determining an average channel condition among the plurality of carriers;
comparing the average channel condition to a first threshold value;
determining a first transmission rate for transmission of quality messages and a second
transmission rate for the transmission of differential indicators based on the comparison;
transmitting quality messages at the first transmission rate; and
transmitting differential indicators at the second transmission rate independently of
quality messages, wherein the second transmission rate is greater than the first transmission rate.

17. (Original) The method as in claim 16, further comprising:
assigning a weight to each of the plurality of carriers, wherein the average channel condition is a weighted average.
18. (Previously Presented) A wireless apparatus, comprising:
processing unit, operative for executing computer-readable instructions; and
a memory storage unit storing a plurality of computer-readable instructions for:
determining a best channel condition associated with a first frequency; and
generating a quality message, the quality message including a quality indicator and a frequency indicator, the frequency indicator identifying the first frequency, wherein the frequency indicator is a pointer to select the first frequency from a plurality of predetermined frequencies; and
generating differential indicators separately from the quality message.
19. (Canceled)
20. (Currently Amended) A wireless apparatus, comprising:
a quality measurement unit configured to estimate a channel condition over a first time window;
a differential analyzer configured to compare the estimated channel condition to a first threshold value; and

a controller configured to determine a first transmission rate for transmission of quality messages and a second transmission rate for transmission of differential indicators based on the comparison, the differential analyzer further configured to generate quality messages at the first transmission rate, the differential analyzer further configured to transmit differential indicators at the second transmission rate independently of quality messages, wherein the second transmission rate is greater than the first transmission rate.

21. (Previously Presented) The wireless apparatus of claim 20, wherein the first time window is dynamically adjusted based on operation of the system.
22. (Previously Presented) The wireless apparatus of claim 20, wherein the controller is configured to:
- calculate an average channel condition; and
 - calculate a variance of the channel condition.
23. (Previously Presented) The wireless apparatus of claim 11, further comprising:
means for dynamically adjusting the first window based on operation of the system.
24. (Previously Presented) The wireless apparatus of claim 11, further comprising:
means for calculating an average channel condition; and
means for calculating variance of the channel condition.

25-27. (Canceled)

28. (Currently Amended) A ~~tangible~~ non-transitory storage medium having stored thereon processor-executable software instructions configured to cause a processor to perform steps comprising:

estimating a channel condition over a first time window on a system;
comparing the estimated channel condition to a first threshold value;
determining a first transmission rate for transmission of quality messages and a second transmission rate for transmission of differential indicators based on the comparison;
transmitting quality messages at the first transmission rate; and
transmitting differential indicators at the second transmission rate independently of quality messages, wherein the second transmission rate is greater than the first transmission rate.

29. (Currently Amended) The ~~tangible~~ non-transitory storage medium of claim 28, wherein the tangible storage medium has stored thereon processor-executable software instructions configured to cause a processor to perform further steps comprising dynamically adjusting the first time window based on operation of the system.

30. (Currently Amended) The ~~tangible~~ non-transitory storage medium of claim 28, wherein the tangible storage medium has stored thereon processor-executable software instructions configured to cause a processor to perform further steps comprising:
calculating an average channel condition; and
calculating variance of the channel condition.

31. (Previously Presented) In a wireless communication system, a method comprising:
generating quality messages at a first frequency, the quality messages providing information on the quality of a communication link;
generating a parity check for each of the quality messages, and
generating differential indicators at a second frequency, the differential indicators indicating changes in the quality of the communication link, wherein the second frequency is greater than the first frequency.

32. (Previously Presented) The method of claim 31, wherein each quality message includes carrier to interference information of a received signal at a receiver.

33. (Previously Presented) The method of claim 31, wherein each differential indicator is at least one bit.

34. (Previously Presented) The method of claim 31, wherein the quality messages are transmitted via a gated channel.

35. (Previously Presented) The method of claim 31, wherein the differential indicators are transmitted via a continuous channel.

36. (Previously Presented) The method of claim 31, comprising:
estimating a channel condition over a first time window;
comparing the estimated channel condition to a first threshold value;
determining a transmission rate for transmission of quality messages based on the comparison; and
transmitting quality messages at the transmission rate.

37. (Previously Presented) The method of claim 36, wherein the first time window is dynamically adjusted based on operation of the system.

38. (Previously Presented) The method of claim 36, further comprising:
calculating an average channel condition; and
calculating variance of the channel condition.

39. (Previously Presented) The method of claim 31, comprising:

determining an average channel condition among a plurality of carriers;
comparing the average channel condition to a first threshold value;
determining a transmission rate for transmission of quality messages based on the comparison; and
transmitting quality messages at the transmission rate.

40. (Previously Presented) The method of claim 39, further comprising:
assigning a weight to each of the plurality of carriers, wherein the average channel condition is a weighted average.

41. (Previously Presented) A remote station apparatus comprising:
a quality measurement unit for iteratively measuring link quality of a communications link;
a quality message processing unit for generating a quality message at a first frequency based on the measured link quality and for generating a parity check corresponding to the quality message; and
a differential analyzer for determining changes in the measured link quality and for generating differential indicators at a second frequency, the differential indicators indicating changes in the quality of the communication link, wherein the second frequency is greater than the first frequency.

42. (Previously Presented) The remote station of claim 41, wherein the link quality is measured as carrier to interference of a received signal.

43. (Previously Presented) The remote station of claim 41, comprising:
means for estimating a channel condition over a first time window;
means for comparing the estimated channel condition to a first threshold value;

means for determining a transmission rate for transmission of quality messages based on the comparison; and

means for transmitting quality messages at the transmission rate.

44. (Previously Presented) A base station comprising:

receive circuitry operative to receive signals on a reverse link of a wireless communication system for processing voice communications and packet-switched communications, the signals including a quality message with a parity check at a first rate, and differential indicators at a second rate, the quality message periodically providing a quality metric of a forward link, wherein the differential indicators track the quality metric between successive quality messages and wherein the second rate is greater than the first rate;

a memory storage unit operative to store a quality message received on the reverse link;
and

a differential analyzer to update the quality message stored in the memory storage unit in response to the differential indicators and the parity check.